

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/049763 A1

(51) International Patent Classification?: **C09K 11/08**,
11/79, C01B 21/06, C09K 11/80

(21) International Application Number:
PCT/JP2004/017431

(22) International Filing Date:
17 November 2004 (17.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003-389695 19 November 2003 (19.11.2003) JP
2004-149616 19 May 2004 (19.05.2004) JP

(71) Applicant (for all designated States except US): MAT-
SUSHITA ELECTRIC INDUSTRIAL CO., LTD.
[JP/JP]; 1006, Oaza Kadoma, Kadoma-shi, Osaka,
5718501 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): OSHIO, Shozo.

(74) Agent: IKEUCHI SATO & PARTNER PATENT AT-
TORNEYS; 26th Floor, OAP Tower 8-30, Tenmabashi
1-chome, Kita-ku, Osaka-shi, Osaka 5306026 (JP).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

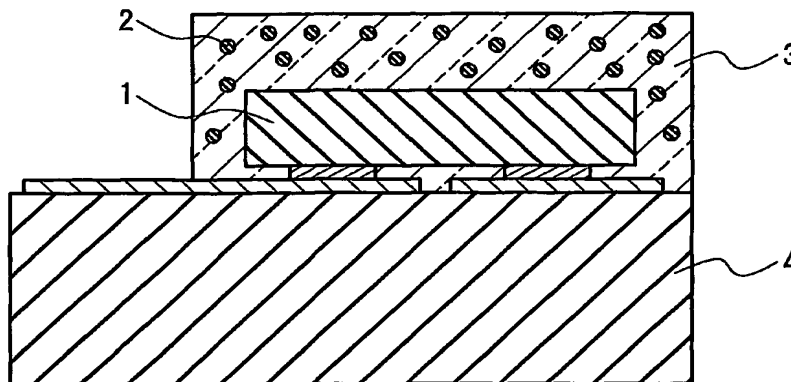
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR PRODUCING NITRIDOSILICATE-BASED COMPOUND, NITRIDOSILICATE PHOSPHOR, AND
LIGHT-EMITTING APPARATUS USING THE NITRIDOSILICATE PHOSPHOR



(57) Abstract: A nitridosilicate-based compound is produced by reacting an alkaline-earth metal compound capable of generating an alkaline-earth metal oxide by heating or a rare earth compound capable of generating a rare earth oxide by heating with at least a silicon compound, while the alkaline-earth metal compound or the rare earth compound is being reduced and nitrided by the reaction with carbon in an atmosphere of nitriding gas. Because of this, a nitridosilicate-based compound of high quality can be produced industrially at low cost.